



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

pw

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,287	07/15/2003	Wen C. Huang		9971
7590	09/26/2006		EXAMINER	
Nanotek Instruments Inc 9436 Parkside Dr Centerville, OH 45458			KASENGE, CHARLES R	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/619,287	HUANG, WEN C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Charles R. Kasenge	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 15 June 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-47 is/are pending in the application.
  - 4a) Of the above claim(s) 43-47 is/are withdrawn from consideration.
- 5) Claim(s) 1-31 is/are allowed.
- 6) Claim(s) 32,39 and 40 is/are rejected.
- 7) Claim(s) 33-38,41 and 42 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 15 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/15/03.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 9/18/06.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of claims 1-42 in the communication filed on 7/15/03 is acknowledged.

- Claims 1-42 pertain to fabricating a circuit component appropriate for class/subclass 700/117-121
- Claims 43-47 pertain to an inkjet fluid dispensing apparatus appropriate for class/subclass 700/282-283; 347/5-6; 216/27

2. Claims 43-47 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the communication filed on 7/15/03.

### *Claim Objections*

3. Claims 1 and 19 are objected to because of the following informalities: the abbreviation "cps" should be in parenthesis, preceded by the term "centipoises", for clarity's sake. Appropriate correction is required.

4. Claim 38 is objected to because of the following informalities: the claim should end with only one period. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 32 is rejected under 35 U.S.C. 102(b) as being anticipated by Jang U.S. Patent 6,180,049. Regarding claim 32, Jang discloses a direct write apparatus for fabricating a desired circuit component onto a substrate surface of a microelectronic device according to a computer-aided design (CAD), said apparatus comprising: (a) a support member for supporting thereon said device substrate (col. 8 and 9, 65-6); (b) a fluid material delivery assembly comprising a chamber at a distance from said support member for containing a precursor fluid material under a substantially constant but adjustable pressure differential relative to the ambient pressure (col. 7 and 8, lines 58-7); (c) an inkjet-based dispensing head in flow communication with said chamber (col. 15, lines 44-46), said head comprising on one end at least a discharge orifice of a predetermined size and a valve means in control relation to said at least a discharge orifice for dispensing droplets of said precursor fluid material through said orifice onto said substrate surface (col. 7 and 8, lines 58-20); and (d) machine control means in electronic communication with a computer and in control relation to both said support member and said dispensing head for generating control signals in response to coordinates of said design of the device and for controlling the position of said dispensing head relative to said support member in response to said control signals to control dispensing of said precursor material for fabricating said component (col. 4, lines 13-51).

Regarding claims 39 and 40, Jang discloses the apparatus of claim 32, 33, or 38, further comprising a substrate feeder disposed at one side of and at a distance from said support member for feeding said substrate onto said support member (Fig. 1). Jang discloses the apparatus of

claim 39, further comprising a substrate collector disposed at another side of and at a distance from said support member for collecting said substrate therefrom upon deposition of said component (Fig. 1).

***Allowable Subject Matter***

7. Claims 1-31 are allowed.
8. Claims 33-38 and 41-42 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100